

3. ISSUES AND OPPORTUNITIES

Several locations within the study areas have been identified by local residents and community leaders as areas in which traffic problems exist. These areas are described below and discussed in greater detail in Section 4 of this report.

Problem Areas

1. **US-45/Greenland Road Intersection:** One primary problem area identified within the corridor is the intersection of US-45 and what is now M-38. The intersection is sometimes known as the “five corners” intersection, although through traffic on Steel Street was eliminated in 1996. This intersection has limited sight distance for motorists on US-45 looking east along Greenland Road, due to rising terrain, and a planter and signs at the Mobil station. Westbound traffic on Greenland Road is traveling down a hill when approaching this intersection, and the view of traffic on US-45 can be obscured. During the winter months, snow piled along the roadways can exacerbate these visibility issues. The planter with its profusion of signs and shrubs inhibits snow removal which is necessary to maintain sight distance. Traffic on US-45 must turn either left or right. A landscaped barrier prevents traffic from crossing the intersection so drivers wishing to access N. Steel Street or East River Street sometimes cut through the parking lot of the Holiday gas station. Tin Street, which intersects with River Street (US-45) just west of the US-45/Greenland Road intersection, is a one-way street with southbound traffic only, meaning that traffic accessing the streets on the north side of this intersection must travel at least two blocks in either direction to find a side street that leads to these streets.



Photo 4: The US-45/Greenland Road (five corners) intersection, showing the planter and sign that impact visibility, and gas station parking lot that is utilized by traffic cutting through to Steel Street.

Cutting down the snow banks poses the risk of significant damage to the landscaping materials. Access management issues include the high number of drives and proximity of

these gas station entrances to the intersection, lack of access to areas north of River Street, sight distance, and traffic using the Holiday gas station parking lot as a through street.

2. **River Street:** The primary downtown street, sometimes referred to as “Main Street,” is River Street. Currently designated as US-45, this street will remain a state trunk line, but will be designated as a business spur of US-45. Access on this section of street is primarily limited to cross streets, most of which are one-way streets in the block between River and Michigan streets. Only a few curb cuts exist along River Street between the intersection of M-38 and US-45 and the intersection of US-45 and the current M-64 alignment, which results in relatively few conflict points compared to many downtown areas. However, there are a few drive-thru exits for financial institutions, a couple of parking lots entrances, and one vacant building with an overhead door opening directly onto River Street. This building was formerly used for automobile sales and repair; the presence of the overhead door and accompanying curb cut present the possibility of future traffic entering directly onto the main downtown street in an area where visibility is limited.

South of River Street, parking lots and alleys are interconnected to allow traffic to travel between businesses without entering and leaving River Street, which can help to reduce the number of possible conflicts along the main street. However, these interconnected parking lots and alleys are characterized by poor separation of parking areas from traffic, and travel through these areas requires numerous turns into and around parking areas.

3. **Entrance to Smurfit-Stone mill:** Concerns with this area include the occasional presence of steam in the area, which can limit visibility near the mill entrance; maintenance of the secondary mill entrance northeast of River Road for emergency access; and changes in employee access. The manufacturing process at the mill results in the production of steam. In cold weather the steam condenses and forms clouds over the mill. The prevailing northwesterly winds off Lake Superior tend to move this steam plume inland, sometimes affecting visibility near the plant entrance.



Photo 5: The Smurfit-Stone mill along M-64 west of the Ontonagon River

The main entrance for the plant is located southwest of the mill off of M-64, and will be unaffected by the realignment required for the new bridge. However, a secondary access exists off of M-64 near the intersection with River Road, and fire and emergency services personnel would like to see this entrance remain open in order to provide emergency access if needed. A related issue is increased response time for fire and emergency services as a result of the relocated bridge; an estimated 5-10 minutes could be added to the response time due to the increased travel distance from the fire hall on River Street.



Photo 6: New alignment of M-38 under construction, with the elementary school in the background on the right. Children walking to school will be required to cross this new 35 mph roadway to get to school.

- 4. New Bridge/Highway Corridor:** Many employees of Smurfit-Stone currently walk to work, and to the downtown area after work to cash checks and purchase goods or services. The relocation of the bridge over the Ontonagon River will result in a much longer walk for employees who want to go from the plant to the downtown area. This may have the effect of causing more employees to drive to work; it may result in increased foot traffic on the new bridge and along US-45; and it may decrease pedestrian traffic to the downtown area. A potential conflict between snowmobile traffic and pedestrians on the bridge exists, with a particular concerns being the safety of pedestrians on the bridge when the snowmobile trail groomer goes through.

Concern also exists with regard to pedestrian crossings on M-64/M-38 from the bridge to the current alignment of M-38. Traffic on US-45, which currently flows unimpeded until the intersection with M-64, will now be required to stop at M-64. Given the four-lane configuration of M-64/M-38 at this point, plus the close proximity of Silver Street just north of M-38, pedestrians will have a significant distance to cross. There is also concern for school children who live in the residential neighborhoods south of the new highway corridor, who will have to cross the highway to get to school. Heard Street will be extended to M-38, and will serve to channel pedestrian traffic to this crossing point, but again pedestrians will be required to cross a 35 mph highway corridor.



Photo 7: The intersection of Silver Street and US-45 is at the left center of photo; the new alignment of M-38 from the east can be seen under construction to the right.

Potential Future Traffic Generators

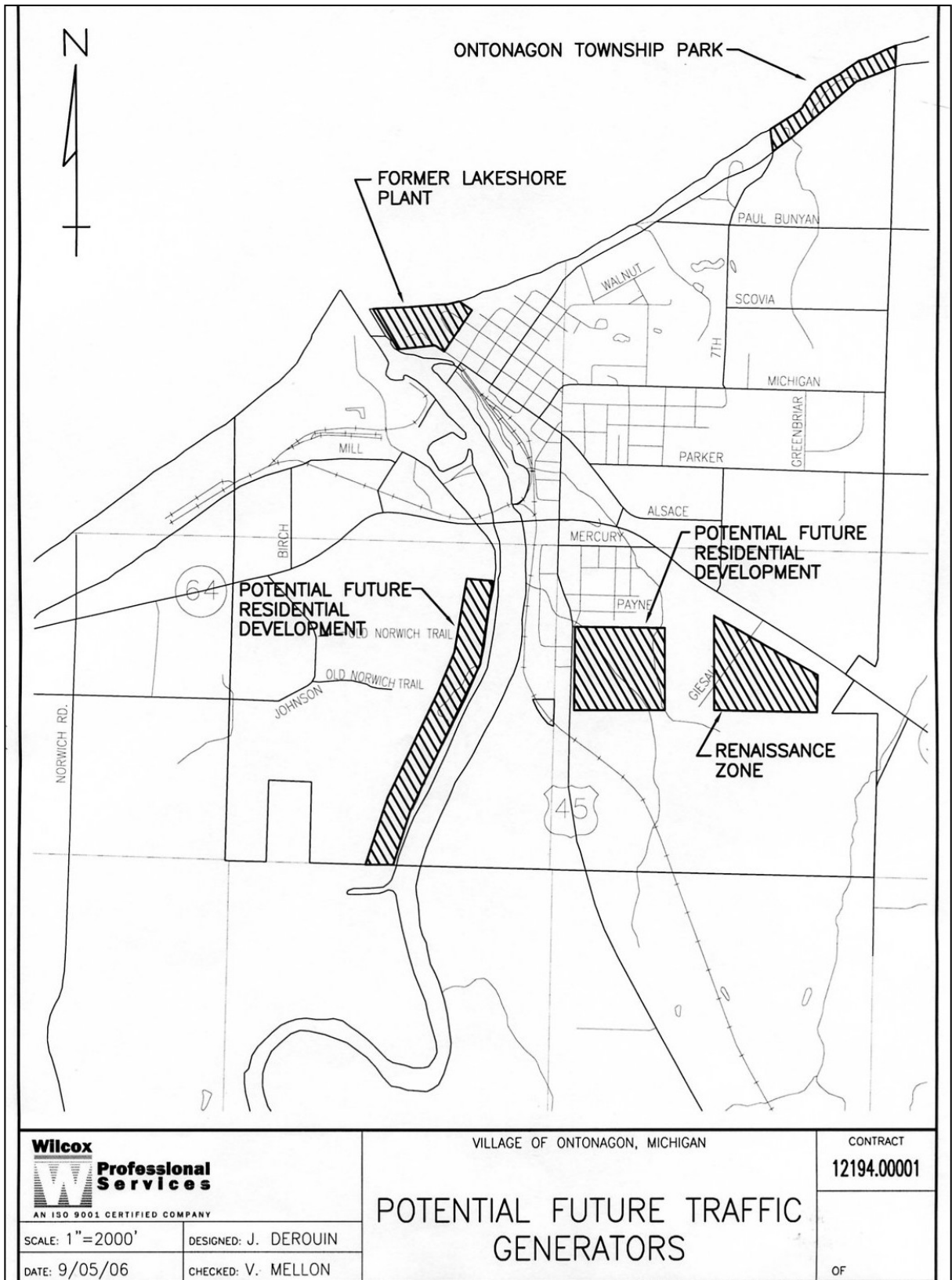
Several areas within the Village could be developed and are capable of generating additional traffic if development occurs. These areas are depicted on Map 3 (page 21).

Future improvements to roads and streets need to take into account this potential future development, and allow for continued traffic flow. Estimates of traffic produced by new development can be made using figures developed by the Institute of Transportation Engineers. These figures indicate the number of trips that can be expected to result from various types of development. A trip is defined as one trip to or from a certain point, such as a household or a business; in other words, a resident of a household leaving for work in the morning and returning in the evening would generate two trips. Trip generation estimates for single-family residential use indicate that an average household generates 10 trips per day; commercial and industrial trip generation varies as a function of the number of employees and the type of good or service produced or sold.

Renaissance Zone: Approximately 50 acres of developable industrial land is in the Village-owned Renaissance Zone along Giesau Drive off of M-38. This area is zoned for industrial use, and the Renaissance Zone designation allows for significant tax breaks for companies locating in the zone. The Village has constructed a speculative building in the Renaissance Zone, in hopes of attracting an employer to locate in the zone. If development of this area occurs, truck and employee traffic will be generated, and will seek to access M-38 via Giesau Drive. A second access point could be developed in the future by constructing a new roadway west to US-45.

Residential areas along River Road: Some residential development exists along River Road as it runs along the Ontonagon River south of M-64. Recent trends in residential development in the Upper Peninsula show that people have a strong desire to live along or within view of water. There are undeveloped areas along River Road that could potentially be developed for residential use, creating additional traffic on River Road that would access the study corridor. The density of development is dependent on local zoning regulations, the availability of municipal services such as sewer and water, and the desires of the developer. Due to the potential of increased trips at the River Road/M-64 intersection special attention should be paid to proposed driveway development in this area.

Map 3: Potential Future Traffic Generators



Former Lakeshore Plant: The vacant Lakeshore industrial site located at the end of River Street along Lake Superior offers several possibilities for future traffic generation. If the site is reused for industrial purposes, heavy truck traffic as well as employee traffic could result. The site is also served by rail and the Port of Ontonagon, which could alleviate reliance on truck traffic. The railroad spur to the Lakeshore plant crosses the current alignment of M-64 at the intersection with River Street (US-45), but this crossing has been paved over and is currently unusable. The current project, which in addition to the relocation of the M-64 bridge includes improvements to the streets which will make up the truck loop at the end of Business US-45, includes restoring this railroad crossing so that rail access to the site is possible.

One of the benefits of the realignment of M-64 that was identified during the development of this plan was the removal of truck traffic from the downtown area; industrial development of the Lakeshore site could mean continued truck traffic in the downtown. The Smurfit-Stone mill and the Lakeshore site occupy much of the Lake Superior shoreline within the Village, and development of the site as a recreational area would provide lakeshore access in the downtown area which presently does not exist. In fact, Lake Superior is barely visible from the state trunk lines in the Village. Development as a recreational area could generate tourist traffic in the area, as well as local traffic. Finally, residential development could provide the opportunity to develop homes with Lake Superior frontage, probably leading to upscale residential development. However, any development of this site is contingent upon the need for remediation of any contamination which may exist, as well as locating a buyer with sufficient financial means to purchase and develop this large parcel of property.

Possible Future Residential Area: A large undeveloped area lies within the Village limits south of Payne Street and between M-38 and U.S. 45. The Village is considering extending municipal utilities to this area, in order to encourage future residential development. If developed, this area would require streets that would provide access to M-38 and/or US-45. This area is adjacent to the Renaissance Zone, and a new street linking the Renaissance Zone to US-45 has been discussed. This new roadway would also provide a link for future residential use.

Township Park Expansion: Ontonagon Township maintains a recreational area in the Village. This park includes a campground, playground, picnic area, and a large expanse of sandy Lake Superior beach. The Township is planning to expand the number of campsites to a total of over 100 sites, and construct a modern toilet and shower facility. The playground will also be expanded. A pavilion with a view of Lake Superior is planned in the future. Access to the park is via Houghton Street and Lakeshore. The park currently attracts both local and tourist traffic, and the expansion will increase use and traffic in the study corridor, particularly at the intersection of Houghton and US-45 (River Street).

Crash Summary

Crash data from 1994 through 2003 was studied to identify any evidence of the following issues:

- crash concentrations around tight curves;
- crashes due to sight obstructions;
- crashes at heavily used intersections (congestion/delay with > 750 trips/day);
- pedestrian crashes and other mid-block, low driver expectation locations;
- parking and backing crashes;
- traffic flow issues due to the lack of street system interconnectedness.

Nationally, crash studies have noted a direct linear relationship with an increased number of crashes as the number of driveways increase for a given segment of highway.

Close driveway spacing also dramatically increases conflict points and thus, crashes. One clear directive for increasing highway safety is to decrease conflict (access) points by:

- combining drives;
- moving drives as far as possible from other intersections;
- improving driveway design factors such as throat width and entering and exiting radii;
- and providing traffic control islands and curb and gutter delineation which help to clearly define traffic flow.

Lighting high-use intersections and providing supplemental right-turn and left-turn lanes and passing flares in addition to curbed delineation is of particular benefit in reducing rear-end crashes.

Through study of the crashes along the M-64/M-38/US-45 highway corridor within the village limits the following specific locations of interest have been identified and crash concentration results from 1994-2003 have been summarized in Table 3 (pages 24-25).

Table 3: Crash Analysis and Recommendations

| Location | No. of Crashes (1994-2004) | Potential Problem/ Possible Solution | Current Project |
|---|----------------------------|--|--|
| NEW M-64 CORRIDOR | | | |
| • West of Superior Way | 18 | Animal Crashes | |
| • US-45 Intersection. | 4 | | |
| • US-45/ M-38/ M-64 intersection | 0 | Ped x-ing non-stop M-64 | Investigate MDOT Safe Routes to School Initiative |
| • Pedestrian /Snowmobile Path Crossing(s) | 0 | | |
| • River Road Intersection for residential, marina /tourism, car-pool lot traffic. | 6 | | (within boundaries of curr. bridge reloc. project) |
| • Steam visibility problems with Mill Entrance | 6 | | |
| M-38 ISSUES | | | |
| • East end driveways w/ poor delineation and spacing. | 0 | | |
| • Hwy M-38 segment located east of Giesau Drive | 19 | Animal Crashes | |
| • Cherry Lane intersection | 5 | Animal Crashes | |
| • Stormwater drainage at 7th and M-38 is concern (stormwater referred to as “river” running down 7th during storms) | 7 | Animal crashes; also visibility issues at intersection | (outside boundaries of current project) MDOT studying possible solutions. |
| • 7th St intersection near the hospital on M-38. | 7 | Possible visibility issues at intersection | |
| • Greenland Intersection. Sight Distance concerns at the 5 Corners location due to Gas Station landscaping. | 7 | Slight distance concerns; visibility issues at intersection | Could pursue future Safety Improvement/ Enhancement Funds. MDOT pursuing removal of planter. |
| • Mercury/ Greenland Intersection. Location of Crossing Guards on M-38 | 3 | | Investigate MDOT Safe Routes to School Initiative |
| • Vicinity of New Bridge, Silver Street and Heard St. | 0 | Ped x-ing non-stop M-64 | Investigate MDOT Safe Routes to School Initiative |
| • Existing driveways on M-38 near Mercury Street | 0 | Combine Driveways. (2 close together, 3rd a short distance away; Result is 3 long drives.) | (within boundaries of current bridge relocation project) |
| • Affect on corridor (potential crashes) from future traffic generators: | | | |
| – Renaissance Zone (50 acres) | 0 | | Coordinated Site Plan Review Committee |
| – Future residential development in area between M-38 and US-45 south of Payne Street | 0 | | Coordinated Site Plan Review Committee |
| – Developable land along Ontonagon River. River Rd. | 0 | | Coordinated Site Plan Review Committee |
| • Houghton Street intersection. Increased RV turning conflicts due to expansion of Township Park (north of town) on Lakeshore Drive | 13 | Intersection sight distance concerns & RV turning on Houghton St. | (within boundaries but outside scope of current project) |

Table 3: Crash Analysis and Recommendations (cont.)

| Location | No. of Crashes | Potential Problem/ Possible Solution | Current Project |
|---|----------------|--|--|
| US-45 ISSUES | | | |
| <ul style="list-style-type: none"> Greenland Road (old 5 Corners Intersection) | | Planter at gas station at intersection blocks view | |
| <ul style="list-style-type: none"> Downtown Snow Removal/ Storage | | Sight distance concerns; visibility issues at numerous intersections | |
| <ul style="list-style-type: none"> Downtown Parking /Backing Crashes: Intersection Sight Distance due to parking spaces/ Driveway Access Issues (Gas Stations, Banks, Other Drive-Thrus) | 25 | Increase size of parking spaces & poss. eliminate spaces at some intersections. | |
| <ul style="list-style-type: none"> Downtown Houghton St Intersection Radii | | Increase Radii for trucks | Potential future safety project. |
| <ul style="list-style-type: none"> Parking Lot entrances. Issues with inter-connectedness and flow of parking lots w/alleys. | | Enter from River St. and exit thru alleys | (within boundaries of current bridge project) |
| <ul style="list-style-type: none"> Loop at north end of River St. will result in trucks turning in residential areas. | | <p>Logging trucks from Houghton St. chew up curb turning on to River St.</p> <p>Need access control for Inn Town Motel on Chippewa @ Michigan intersection.</p> <p>Need all future drives in the loop area to be accessed from the alleys.</p> | (within boundaries of current bridge relocation project) |
| <ul style="list-style-type: none"> On-street parking impedes the view of traffic turning on to River St (motorcycles). | | Move lamp posts, garbage bins, plantings, etc | Site Plan Review Committee |
| <ul style="list-style-type: none"> Parking spots at the following intersections: | | Review intersection sight distance. | |
| <ul style="list-style-type: none"> – Houghton St. | 13 | | Site Plan Review Committee |
| <ul style="list-style-type: none"> – Chippewa St. | 11 | | Site Plan Review Committee |
| <ul style="list-style-type: none"> – Ontonagon St. | 5 | | Site Plan Review Committee |
| <ul style="list-style-type: none"> – Lake St. | 4 | | Site Plan Review Committee |
| <ul style="list-style-type: none"> Speed & hill on westbound Michigan St. @ Houghton St. intersection. | 19 * | | Potential future safety project. |

Source: MDOT

* Crash types include 8 angle straight; 2 rear end straight; 1 fixed object; 1 sideswipe opposite; and 7 misc. multi-vehicle.